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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/534,880	03/24/2000	Shannon M. Nelson	North-391A/A-	2654

7663 7590 07/07/2004

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EXAMINER	
SEDIGHIAN, REZA	

ART UNIT	PAPER NUMBER
2633	

DATE MAILED: 07/07/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	09/534,880	NELSON ET AL.	
	Examiner	Art Unit	
	M. R. Sedighian	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 March 2004* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4 and 6-11* is/are rejected.

7)☒ Claim(s) *5* is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15)☒ Notice of References Cited (PTO-892)
16)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
18)☐ Interview Summary (PTO-413) Paper No(s). _____ .
19)☐ Notice of Informal Patent Application (PTO-152)
20)☐ Other:

1. This communication is responsive to applicant's 3/22/04 amendments and remarks in the application of Shannon M. Nelson et al. for "Shock resistant backplane utilizing infrared communication scheme with electrical interface for embedded systems". The amendments have been entered. Claims 1-11 are now pending.

2. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 11, it is not clear about "... at least one alternative single hardwire electrical conductor ...". Claim 1 recites a single hardwire electrical conductor. One alternative single hardwire electrical conductor of claim 11, contradicts with a single hardwire electrical conductor path of claim 1. In regard to applicant's previous arguments with regard to the single line, claim 11 says that the single line has "at least one" additional line. In that applicant's claims contradicts themselves. It is not appear that the single line is an actual requirement.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-4 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danknick et al. (US patent No: 5,828,864) in view of Rostoker et al. (US patent No: 5,729,535).

Regarding claims 1 and 6, Danknick discloses operatively interconnecting modules (modules 102 and 1001, fig. 3 and 102, 101, fig. 23) within a system (col. 27, lines 12-16 and figs. 2B, 3, 23, note that modules 102 and 1001 are installed in a housing) to enable data to be transmitted and received therebetween (col. 26, lines 25-35), comprising: a first module (1001 in fig. 3, or 101 in fig. 23) having a first media access control logic circuit for transmitting and receiving data (col. 27, lines 17-18) substantially conforming to a standardized infrared communications scheme protocol (col. 26, lines 28-50), a second module (102, figs. 3 and 102, 151, fig. 23) having a second media access control logic circuit for transmitting and receiving data (col. 28, lines 20-35) substantially conforming to a standardized infrared communications scheme protocol utilized by the first module (note that micro-processor 151 and NEB 101 (or shared memory 200) communicate bi-directionally with each other, and it would have been obvious that micro-processor 151 should be "SUBSTANTIALLY CONFORMING" with standardized infrared communications protocol in order to bi-directionally communicate with the NEB 101), and a single hardwire electrical conductor signal path connecting the first (1001, fig. 3 or 101, fig. 23) and second modules (102, figs. 3, 23) to facilitate electrical bi-directional communications (the electrical conductor that connects module 1001 to module 102). It would appear obvious, if not inherent, that the electrical conductor could be a single hardwire conductor. See also comments in the examiner's arguments with regard to the 112 rejections.

Danknick differs from the claimed invention in that Danknick does not specifically disclose the modules are within a computer system. However, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate modules or circuit card such as module 101 and 102 of Danknick in a computer system, or in a computing system, in order to process or analyze the status of the received data. Danknick further differs from the claimed invention in that Danknick does not specifically disclose the system is a sock resistant system. Danknick discloses installation of NEB 101 into printer 102 (col. 27, lines 12-16 and 101, 102, fig. 22). Rostoker teaches a sock resistant system (col. 4, lines 25-28 and 1, fig. 2) for a wireless communication board (9, fig. 2, 3). It is inherent that electrical components can be housed within a housing for the reason of safety and protection, and it would have been obvious to provide a shock-resistant housing to a system in order to protect it's components and to provide safety to users. Therefore, it would have been obvious to an artisan at the time of invention that control modules such as modules 101 and 102 of Danknick can be housed within a housing such as the one of Rostoker to provide safety and protection.

Regarding claims 2 and 7, Danknick discloses the protocol is developed by Infrared data association (col. 26, lines 45-50).

Regarding claims 3 and 8, Danknick discloses the first and second modules (101, 102, figs. 3, 23) are housed within an enclosure (101, 102, fig. 22 and col. 27, lines 12-16).

Regarding claims 4 and 9, Danknick discloses the first and second modules are operative to run an embedded application (col. 27, lines 17-27).

Regarding claim 10, Danknick discloses the modules comprise of at least one of an individual circuit board and a daughter board (col. 27, lines 7-8, for example, micro-processor 151 can be a circuit board and module 101 can be a daughter board).

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1-4 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Story et al. (US patent No: 5,774,744) in view of Rostoker et al. (US patent No: 5,729,535), or Curry et al. (US patent No: 5,940,510).

Regarding claims 1 and 6, Story discloses a system (col. 4, lines 20-23 and 10′, fig. 2) for operatively interconnecting modules (modules 26 and 12′, fig. 2) within a computer system (col. 5, lines 20-29) to enable data to be transmitted and received therebetween (note that data are transmitted bi-directionally between modules 26 and 12′), comprising: a first module (26, fig. 2) having a first media access control logic circuit for transmitting and receiving data (col. 5, lines 30-39) substantially conforming to a standardized infrared communications scheme protocol (col. 5, line 32, 39-40), a second module (12′, fig. 2) having a second media access control logic circuit for transmitting and receiving data (col. 5, lines 36-37) substantially conforming to a standardized infrared communications scheme protocol utilized by the first module (note that controller 26 communicate bi-directionally with controller 12′, and it would have been obvious

that controller 12′ should be "SUBSTANTIALLY CONFORMING" with standardized infrared communications protocol in order to communicate bi-directionally with the controller 26), and a single electrical conductor signal path connecting the first and second modules to facilitate electrical bi-directional communications (note that an electrical conductor transmit "DATA" bi-directionally between modules 26 and 12′). It would appear obvious, if not inherent, that the electrical conductor could be a single hardwire conductor. See also comments in the examiner's arguments with regard to the 112 rejections. Story differs from the claimed invention in that Story does not specifically disclose the system is a sock resistant system. Rostoker teaches a sock resistant system (col. 4, lines 25-26 and 1, fig. 2) for a wireless communication boards (9, fig. 2, 3). Curry teaches a secure device (108, fig. 3) with a plurality of control modules (12, 18, fig. 3) that communicate bi-directionally, wherein the device can be incorporated into a computer system (col. 4, lines 33-42). Curry further teaches the device encased in a durable shock-resistant enclosure (col. 4, lines 44-45). It is inherent that electrical components can be housed within a housing for the reason of safety and protection, and it would have been obvious to provide a shock-resistant housing to a system in order to protect it's components and to provide safety to users. Therefore, it would have been obvious to an artisan at the time of invention that control modules such as modules 26 and 12′ of Story can be housed within a housing such as the one of Rostoker, or in a shock resistant housing as it is taught by Curry, to provide safety and protection.

Regarding claims 2 and 7, Story discloses the protocol is developed by Infrared data association (col. 5, lines 32, 35-36).

Regarding claims 3 and 8, as it is discussed above, it is inherent that electrical circuitries such as modules 26 and 12′ can be housed within a housing to provide protection and safety.

Regarding claims 4 and 9, Story discloses the first and second modules are operative to run an embedded application (col. 5, lines 37-44).

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Story et al. (US patent No: 5,774,744) in view of Rostoker et al. (US patent No: 5,729,535), or Curry et al. (US patent No: 5,940,510), and in further in view of Harari et al. (US Patent No: 5,887,145).

Regarding claim 10, the modified data transmission system of Story and Rostoker, or Curry differs from the claimed invention in that Story and Rostoker, or Curry do not disclose the modules comprise of at least one of an individual circuit board and a daughter board. Harari teaches a first and second control modules (41, 20, figs. 7, 9 and col. 8, lines 24-32, 40-46) that are mounted on a circuit board (10, fig. 9) and a daughter board (20, fig. 9), respectively (col. 12, lines 19-24). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to mount the control modules of Story on a circuit board and/or on a daughter board, as it is taught by Harari, in order to install or mount the control modules within the computer system.

10. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Applicant's arguments with respect to claims 1 and 6 have been considered but are moot in view of the new ground(s) of rejection.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad R Sedighian whose telephone number is (703) 308-9063. The examiner can normally be reached on M-F (from 9 AM to 5 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703) 305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 .

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

M. R. Sedighian

M.R. SEDIGHIAN
Patent Examiner
Art Unit: 2633